

10/550,676

## Connecting via Winsock to STN

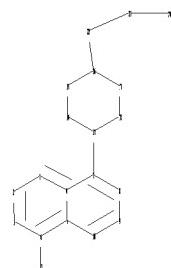
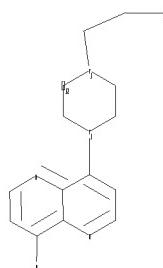
Welcome to STN International! Enter x:x

FILE 'HOME' ENTERED AT 11:35:34 ON 31 JUL 2008

=> file req

$\Rightarrow$

Uploading C:\Program Files\Stnexp\Queries\10550676.str



```
chain nodes :  
12 22 23 24
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10/550,676

ring nodes :  
1 2 3 4 5 6 7 8 9 10 13 14 15 16 17 18  
chain bonds :  
6-12 7-13 16-22 22-23 23-24  
ring bonds :  
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10 13-14 13-18 14-15 15-16  
16-17 17-18  
exact/norm bonds :  
6-12 7-13 13-14 13-18 14-15 15-16 16-17 16-22 17-18 22-23 23-24  
normalized bonds :  
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 8-9 9-10  
isolated ring systems :  
containing 1 :

G1:C,N

Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
12:CLASS 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 22:CLASS 23:CLASS  
24:CLASS

L1 STRUCTURE UPLOADED

=> d l1  
L1 HAS NO ANSWERS  
L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*  
Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

L3 82 SEA SSS FUL L1

=> file ca

=> s l3  
L4 3 L3

=> d ibib abs fhitstr 1-3

L4 ANSWER 1 OF 3 CA COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 145:188914 CA  
TITLE: Preparation of naphthyridinylpiperazinylethylaminomethylpyridothiazinones and related compounds as antibacterial agents  
INVENTOR(S): Miller, William Henry; Rouse, Meagan B.; Seefeld, Mark Andrew  
PATENT ASSIGNEE(S): Glaxo Group Limited, UK  
SOURCE: PCT Int. Appl., 52pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

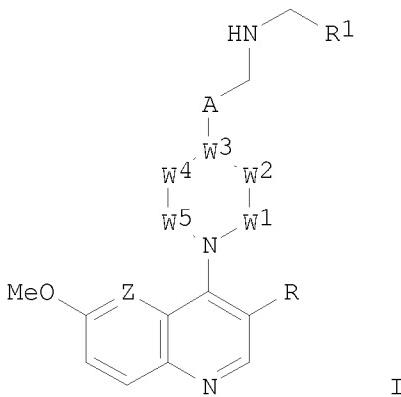
English

FAMILY ACC. NUM. COUNT:

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PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006081289	A2	20060803	WO 2006-US2617	20060124
WO 2006081289	A3	20061214		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1846411	A2	20071024	EP 2006-733883	20060124
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR				
US 20080139539	A1	20080612	US 2007-814611	20070724
PRIORITY APPLN. INFO.:			US 2005-646813P	P 20050125
			WO 2006-US2617	W 20060124

OTHER SOURCE(S): MARPAT 145:188914  
GI

AB Title compds. [I; Z = CH, N; R = H, F; W = CH, C(OH), N; W1, W2, W4, W5 = CH<sub>2</sub>, or 1 of W1, W2, W4, W5 = CO, the others = CH<sub>2</sub>; A = CH<sub>2</sub>, CH(OH); R1 = 4H-pyrido[3,2-b][1,4]thiazin-3-oxo-6-yl, 4H-pyrido[3,2-b][1,4]oxazin-3-oxo-6-yl, 2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-6-yl], were prepared Thus, [2-[4-[3-fluoro-6-methoxy-1,5-naphthyridin-4-yl]-1-piperazinyl]ethyl]amine (preparation given), 3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazine-6-

carboxaldehyde (preparation given), and Na<sub>2</sub>SO<sub>4</sub> were kept 12 h in CH<sub>2</sub>Cl<sub>2</sub>/EtOH; NaBH<sub>4</sub> was added to give after 1 h 30% 6-[[[2-[4-[3-fluoro-6-methoxy-1,5-naphthyridin-4-yl]-1-piperazinyl]ethyl]amino]methyl]-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one. A substantial majority of I showed min. inhibitory concns. of ≤20 mg/mL against ≥1 of *Streptococcus aureus*, *Streptococcus pneumoniae*, *Streptococcus pyogenes*, *Enterococcus faecalis*, etc.

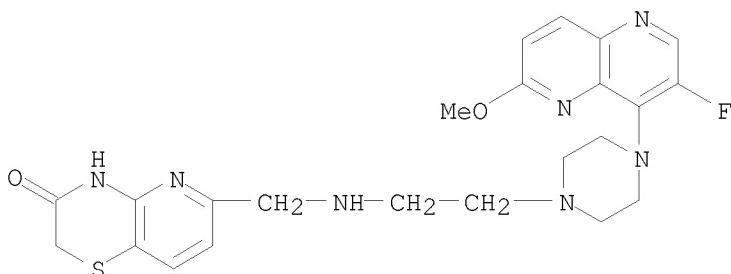
IT 903587-59-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of naphthyridinylpiperazinylethylaminomethylpyridothiazinones and related compds. as antibacterials)

RN 903587-59-7 CA

CN 2H-Pyrido[3,2-b]-1,4-thiazin-3(4H)-one, 6-[[[2-[4-(3-fluoro-6-methoxy-1,5-naphthyridin-4-yl)-1-piperazinyl]ethyl]amino]methyl]- (CA INDEX NAME)



L4 ANSWER 2 OF 3 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 141:350152 CA

TITLE: Preparation of quinoline and naphthyridine derivatives as antibacterial agents

INVENTOR(S): Hennessy, Alan J.; Miller, William Henry; Seefeld, Mark Andrew

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., 74 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087145	A2	20041014	WO 2004-US9371	20040326
WO 2004087145	A3	20041104		
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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,				

ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,  
SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,  
TD, TG  
EP 1605938 A2 20051221 EP 2004-758428 20040326  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK  
JP 2006521401 T 20060921 JP 2006-509364 20040326  
US 20060189601 A1 20060824 US 2005-550676 20050926  
PRIORITY APPLN. INFO.: US 2003-458147P P 20030327  
WO 2004-US9371 W 20040326

OTHER SOURCE(S): MARPAT 141:350152

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Quinoline and naphthyridine derivs. I [Z1 = N or CR1a; R1 and R1a independently = H, OH, OH, NH<sub>2</sub>, (un)substituted-alkoxy, -piperidyl, etc.; R2 = H or halo, provided that when Z1 = N, then R2 = H; R3 = H, halo, OH, CN, CF<sub>3</sub>, NO<sub>2</sub>, acyl, aryl, heteroaryl, etc.; W1 = N, C, or CR4; W2 and W6 independently = CO, CR4, or CR4R5; W3 and W5 independently = CO or CR4R5; alternatively one of W2, W3, W5 or W6 = (CR4R5)<sub>2</sub>; each R4 and R5 independently = H, halo, OH, CN, CF<sub>3</sub>, acyl, aryl, etc.; A = CR6R7 or CO; B = CR8R9 or CO; R6-9 independently = H, halo, OH, CN, azido, CO<sub>2</sub>H, acylthio, (un)substituted-alkyl, etc.; R10 = H, aryl, heteroaryl, etc.; R11 = (un)substituted bicyclic carbocyclic or heterocyclic ring attached via U; U = CO, SO<sub>2</sub>, CH<sub>2</sub>, or CR16R17 wherein R16 and R17 independently = H, aryl, heteroaryl, etc.], as well as their pharmaceutically acceptable salts, are prepared and disclosed as useful in the treatment of bacterial infections in mammals, particularly humans. Thus, e.g., II was prepared via substitution of 4-bromo-6-methoxyquinoline with (2-piperidin-4-ylethyl)carbamic acid tert-Bu ester (preparation given) followed by deprotection and N-alkylation with 3-oxo-3,4-dihydro-2H-pyrido[1,4]thiazine-6-carboxaldehyde. In antimicrobial assays, I possessed min. inhibitory concentration values ≤ 20 µg/mL.

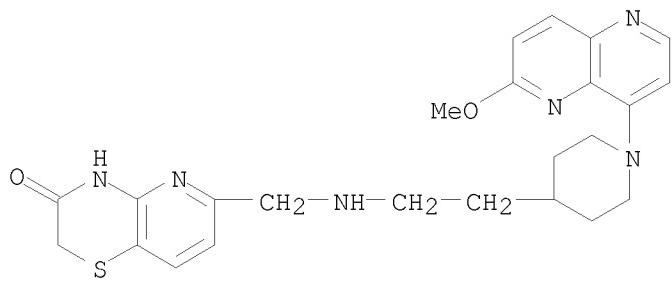
IT 774609-31-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of quinoline and naphthyridine derivs. as antibacterial agents)

RN 774609-31-3 CA

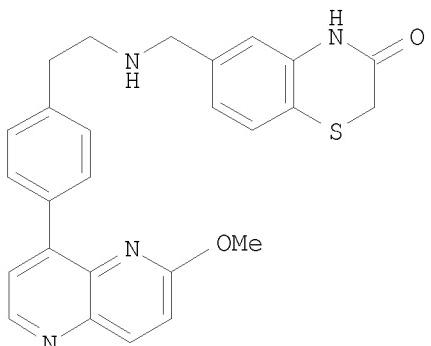
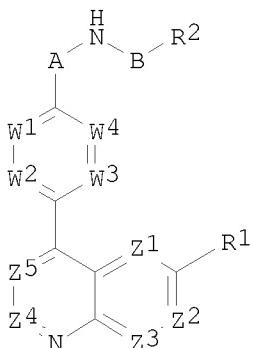
CN 2H-Pyrido[3,2-b]-1,4-thiazin-3(4H)-one, 6-[[2-[1-(6-methoxy-1,5-naphthyridin-4-yl)-4-piperidinyl]ethyl]amino]methyl]- (CA INDEX NAME)



L4 ANSWER 3 OF 3 CA COPYRIGHT 2008 ACS on STN  
 ACCESION NUMBER: 140:423682 CA  
 TITLE: Preparation of quinoline and naphthyridine derivatives as antibacterial agents  
 INVENTOR(S): Axtен, Jeffrey Michael; Gallagher, Timothy Francis;  
 Miller, William Henry; Seefeld, Mark Antony  
 PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA  
 SOURCE: PCT Int. Appl., 56 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041210	A2	20040521	WO 2003-US35206	20031104
WO 2004041210	A3	20040708		
W: AE, AG, AL, AU, BA, BB, BR, BZ, CA, CN, CO, CR, CU, DM, DZ, EC, EG, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, OM, PH, PL, RO, SC, SG, TN, TT, UA, US, UZ, VN, YU, ZA				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003291227	A1	20040607	AU 2003-291227	20031104
EP 1560488	A2	20050810	EP 2003-783156	20031104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006505603	T	20060216	JP 2004-550496	20031104
US 20070004710	A1	20070104	US 2005-533501	20050502
PRIORITY APPLN. INFO.:			US 2002-423872P	P 20021105
			WO 2003-US35206	W 20031104

OTHER SOURCE(S): MARPAT 140:423682  
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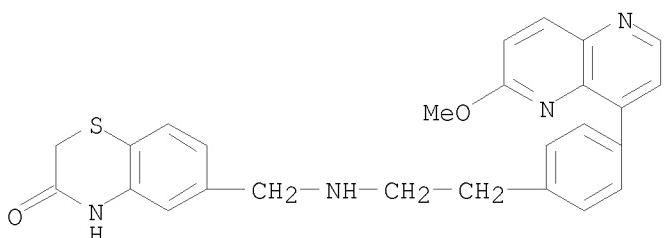
AB The title compds. having a [1,4]thiazin-3-one or a [1,4]oxazin-3-one subunit with general formula of I [wherein Z1-Z5 = independently N or (un)substituted CH; W1-W4 = independently N or (un)substituted CH; R1 = H, OH, amino, (un)substituted alkoxy, etc.; R2 = (un)substituted (hetero)bicyclic ring system; A = (un)substituted alkylene; B = CO, SO<sub>2</sub>, or (un)substituted alkylene] or pharmaceutically acceptable salts thereof are prepared. For example, the compound II was prepared in a multi-step synthesis. I are useful for the treatment of bacterial infections in mammals, particularly humans (no data).

IT 691872-19-2P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(drug candidate; preparation of quinoline and naphthyridine derivs. as antibacterial agents)

RN 691872-19-2 CA

CN 2H-1,4-Benzothiazin-3(4H)-one, 6-[[[2-[4-(6-methoxy-1,5-naphthyridin-4-yl)phenyl]ethyl]amino]methyl]- (CA INDEX NAME)



=> file marpat

=> s 11 full  
L5 11 SEA SSS FUL L1

=> d ibib abs fqhit 1-11

L5 ANSWER 1 OF 11 MARPAT COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 145:188914 MARPAT

TITLE: Preparation of naphthyridinylpiperazinylethylaminomethylpyridothiazinones and related compounds as antibacterial agents

INVENTOR(S): Miller, William Henry; Rouse, Meagan B.; Seefeld, Mark Andrew

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., 52pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

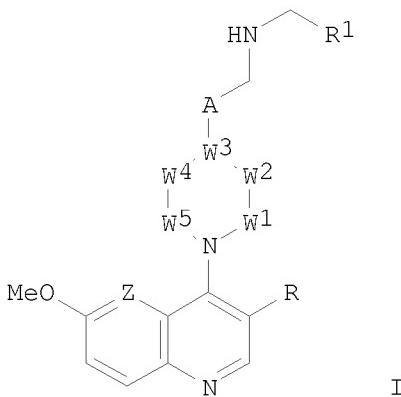
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

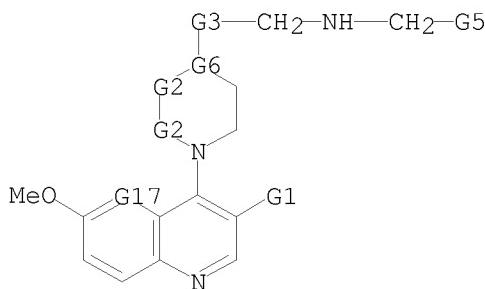
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006081289	A2	20060803	WO 2006-US2617	20060124
WO 2006081289	A3	20061214		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1846411	A2	20071024	EP 2006-733883	20060124
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR				
US 20080139539	A1	20080612	US 2007-814611	20070724
PRIORITY APPLN. INFO.:			US 2005-646813P	20050125
			WO 2006-US2617	20060124

GI



AB Title compds. [I; Z = CH, N; R = H, F; W = CH, C(OH), N; W1, W2, W4, W5 = CH<sub>2</sub>, or 1 of W1, W2, W4, W5 = CO, the others = CH<sub>2</sub>; A = CH<sub>2</sub>, CH(OH); R1 = 4H-pyrido[3,2-b][1,4]thiazin-3-oxo-6-yl, 4H-pyrido[3,2-b][1,4]oxazin-3-oxo-6-yl, 2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-6-yl], were prepared Thus, [2-[4-[3-fluoro-6-methoxy-1,5-naphthyridin-4-yl]-1-piperazinyl]ethyl]amine (preparation given), 3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazine-6-carboxaldehyde (preparation given), and Na<sub>2</sub>SO<sub>4</sub> were kept 12 h in CH<sub>2</sub>C<sub>12</sub>/EtOH; NaBH<sub>4</sub> was added to give after 1 h 30% 6-[[2-[4-[3-fluoro-6-methoxy-1,5-naphthyridin-4-yl]-1-piperazinyl]ethyl]amino]methyl]-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one. A substantial majority of I showed min. inhibitory concns. of ≤20 mg/mL against ≥1 of Streptococcus aureus, Streptococcus pneumoniae, Streptococcus pyogenes, Enterococcus faecalis, etc.

MSTR 1

G2 = 1 or more CH<sub>2</sub>G3 = CH<sub>2</sub>

G6 = CH

G17 = N

Patent location: claim 1

Note: or pharmaceutically acceptable salts, or solvates

L5 ANSWER 2 OF 11 MARPAT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 144:233377 MARPAT

TITLE: Preparation of 1-phenylalkanecarboxylic acid amides of amino acid amides for the treatment of neurodegenerative diseases

INVENTOR(S): Raveglia, Luca; Peretto, Ilaria; Radaelli, Stefano; Imbimbo, Bruno Pietro; Rizzi, Andrea; Villetti, Gino

PATENT ASSIGNEE(S): Chiesi Farmaceutici S.p.A., Italy

SOURCE: PCT Int. Appl., 13 pp.

DOCUMENT TYPE: Patent

LANGUAGE: English

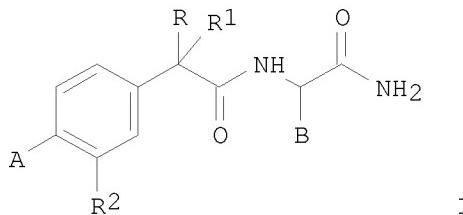
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006016219	A2	20060216	WO 2005-IB2189	20050726
WO 2006016219	A3	20060427		
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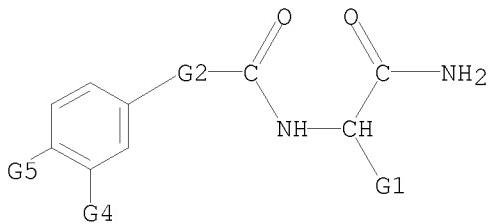
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 NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,  
 SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU,  
 ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
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 AU 2005270949 A1 20060216 AU 2005-270949 20050726  
 CA 2576009 A1 20060216 CA 2005-2576009 20050726  
 EP 1778623 A2 20070502 EP 2005-767873 20050726  
 EP 1778623 B1 20080702  
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 BA, HR, MK, YU  
 CN 1984878 A 20070620 CN 2005-80023905 20050726  
 JP 2008509124 T 20080327 JP 2007-524411 20050726  
 BR 2005013647 A 20080513 BR 2005-13647 20050726  
 KR 2007038982 A 20070411 KR 2006-727604 20061228  
 US 20080096968 A1 20080424 US 2007-572974 20071012  
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 WO 2005-IB2189 20050726

OTHER SOURCE(S): CASREACT 144:233377  
 GI

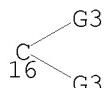


AB 1-Phenylalkanecarboxylic acid amides of amino acid amides [I; A = (un)substituted Ph, (un)substituted heteroaryl, (un)substituted heterocyclyl; B = H, side chain of an  $\alpha$ -amino acid; R, R1 = (un)branched C1-4 alkyl; R2= H, CF<sub>3</sub>, OCF<sub>3</sub>, halogen; e.g., glycaminamide of 1-[2-fluoro-4'-[[4-(trifluoromethyl)cyclohexyl]oxy]-1,1'-biphenyl-4-yl]cyclopropanecarboxylic acid] are prepared their use in pharmaceutical dosage formulations for the treatment and/or prevention of neurodegenerative diseases, such as Alzheimer's disease, is claimed.

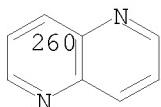
MSTR 1



G2 = 16



G5 = 260



Patent location: claim 1

L5 ANSWER 3 OF 11 MARPAT COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 141:350152 MARPAT  
 TITLE: Preparation of quinoline and naphthyridine derivatives as antibacterial agents  
 INVENTOR(S): Hennessy, Alan J.; Miller, William Henry; Seefeld, Mark Andrew  
 PATENT ASSIGNEE(S): Glaxo Group Limited, UK  
 SOURCE: PCT Int. Appl., 74 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004087145	A2	20041014	WO 2004-US9371	20040326
WO 2004087145	A3	20041104		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,			

TD, TG

EP 1605938	A2	20051221	EP 2004-758428	20040326
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
JP 2006521401	T	20060921	JP 2006-509364	20040326
US 20060189601	A1	20060824	US 2005-550676	20050926
PRIORITY APPLN. INFO.:				
			US 2003-458147P	20030327
			WO 2004-US9371	20040326

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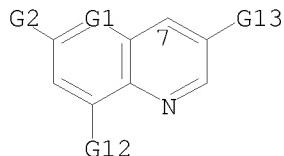
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Quinoline and naphthyridine derivs. I [Z1 = N or CR1a; R1 and R1a independently = H, OH, OH, NH2, (un)substituted-alkoxy, -piperidyl, etc.; R2 = H or halo, provided that when Z1 = N, then R2 = H; R3 = H, halo, OH, CN, CF3, NO2, acyl, aryl, heteroaryl, etc.; W1 = N, C, or CR4; W2 and W6 independently = CO, CR4, or CR4R5; W3 and W5 independently = CO or CR4R5; alternatively one of W2, W3, W5 or W6 = (CR4R5)2; each R4 and R5 independently = H, halo, OH, CN, CF3, acyl, aryl, etc.; A = CR6R7 or CO; B = CR8R9 or CO; R6-9 independently = H, halo, OH, CN, azido, CO2H, acylthio, (un)substituted-alkyl, etc.; R10 = H, aryl, heteroaryl, etc.; R11 = (un)substituted bicyclic carbocyclic or heterocyclic ring attached via U; U = CO, SO2, CH2, or CR16R17 wherein R16 and R17 independently = H, aryl, heteroaryl, etc.], as well as their pharmaceutically acceptable salts, are prepared and disclosed as useful in the treatment of bacterial infections in mammals, particularly humans. Thus, e.g., II was prepared via substitution of 4-bromo-6-methoxyquinoline with (2-piperidin-4-ylethyl)carbamic acid tert-Bu ester (preparation given) followed by deprotection and N-alkylation with 3-oxo-3,4-dihydro-2H-pyrido[1,4]thiazine-6-carboxaldehyde. In antimicrobial assays, I possessed min. inhibitory concentration values  $\leq$  20  $\mu$ g/mL.

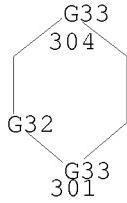
MSTR 1

<sub>97</sub>G<sub>14</sub>-G<sub>15</sub>-<sub>99</sub>G<sub>19</sub>-G<sub>19</sub>-G<sub>20</sub>-G<sub>23</sub>-G<sub>24</sub>

G1 = N  
G14 = 7



G15 = 304-97 301-99



G19 = alkylidene <containing 1 or more C> (opt. substd.)  
 G20 = NH  
 G32 = (1-2) CH<sub>2</sub>  
 G33 = 305



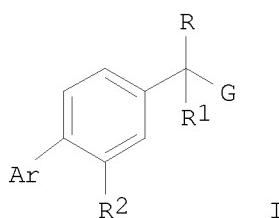
Patent location: claim 1  
 Note: or pharmaceutically acceptable salts  
 Note: substitution is restricted

L5 ANSWER 4 OF 11 MARPAT COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 141:243186 MARPAT  
 TITLE: Preparation of 1-phenylalkanecarboxylic acid derivatives for the treatment of neurodegenerative diseases  
 INVENTOR(S): Raveglia, Luca; Peretto, Llaria; Radaelli, Stefano; Imbimbo, Bruno Pietro; Rizzi, Andrea; Villetti, Gino  
 PATENT ASSIGNEE(S): Chiesi Farmaceutici S.p.A., Italy  
 SOURCE: PCT Int. Appl., 26 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004074232	A1	20040902	WO 2004-EP1596	20040219
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004213145	A1	20040902	AU 2004-213145	20040219
CA 2514384	A1	20040902	CA 2004-2514384	20040219
EP 1594833	A1	20051116	EP 2004-712483	20040219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2004007662	A	20060301	BR 2004-7662	20040219
CN 1751018	A	20060322	CN 2004-80004729	20040219

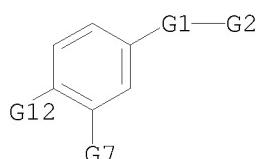
JP 2006518351	T	20060810	JP 2006-501896	20040219
NO 2005003855	A	20051121	NO 2005-3855	20050818
US 20070060752	A1	20070315	US 2005-546190	20050818
PRIORITY APPLN. INFO.:			IT 2003-MI311	20030221
			IT 2003-MI2068	20031023
			WO 2004-EP1596	20040219

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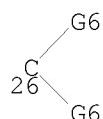


AB The title compds. I [R and R1 are the same and are alkyl, or CRR1 = ring; G = tetrazolyl residue, etc.; R2 = H, CF<sub>3</sub>, etc.; Ar = Ph (with one or more substituents), etc.] are prepared. Thus, 2-methyl-2-(2-fluoro-4'-trifluoromethylbiphen-4-yl)propionic acid (II) was prepared in 3 steps from 2-(2-fluoro-4'-trifluoromethylbiphen-4-yl)propionic acid. In an assay for inhibition of neurotoxic A $\beta$ 42 release in the supernatant of H4-15x cells, II at 100  $\mu$ M gave 58% inhibition of A $\beta$ 42 release. Compds. of this invention showed inhibitory activity against A $\beta$ 42 release while showing very low inhibitory activity against COX-1.

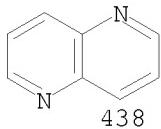
MSTR 1



G1 = 26



G2 = CONH<sub>2</sub>  
 G12 = 438



438

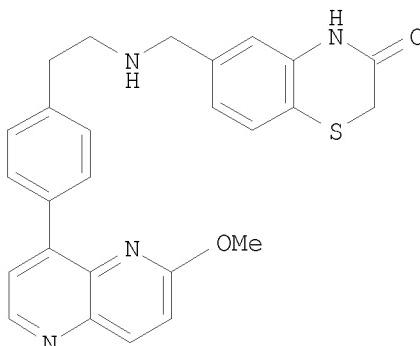
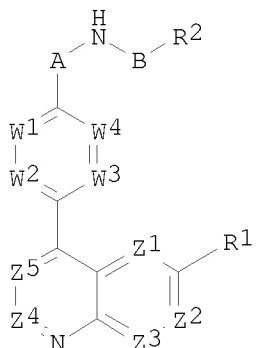
Patent location: claim 1

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 11 MARPAT COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 140:423682 MARPAT  
 TITLE: Preparation of quinoline and naphthyridine derivatives as antibacterial agents  
 INVENTOR(S): Axtен, Jeffrey Michael; Gallagher, Timothy Francis;  
 Miller, William Henry; Seefeld, Mark Antony  
 PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA  
 SOURCE: PCT Int. Appl., 56 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

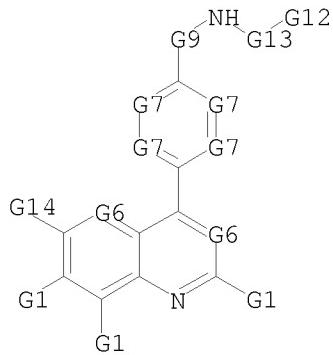
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004041210	A2	20040521	WO 2003-US35206	20031104
WO 2004041210	A3	20040708		
W: AE, AG, AL, AU, BA, BB, BR, BZ, CA, CN, CO, CR, CU, DM, DZ, EC, EG, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, OM, PH, PL, RO, SC, SG, TN, TT, UA, US, UZ, VN, YU, ZA				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003291227	A1	20040607	AU 2003-291227	20031104
EP 1560488	A2	20050810	EP 2003-783156	20031104
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006505603	T	20060216	JP 2004-550496	20031104
US 20070004710	A1	20070104	US 2005-533501	20050502
PRIORITY APPLN. INFO.:			US 2002-423872P	20021105
			WO 2003-US35206	20031104

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AB The title compds. having a [1,4]thiazin-3-one or a [1,4]oxazin-3-one subunit with general formula of I [wherein Z1-Z5 = independently N or (un)substituted CH; W1-W4 = independently N or (un)substituted CH; R1 = H, OH, amino, (un)substituted alkoxy, etc.; R2 = (un)substituted (hetero)bicyclic ring system; A = (un)substituted alkylene; B = CO, SO<sub>2</sub>, or (un)substituted alkylene] or pharmaceutically acceptable salts thereof are prepared. For example, the compound II was prepared in a multi-step synthesis. I are useful for the treatment of bacterial infections in mammals, particularly humans (no data).

MSTR 1



$$G_6 = N / 24$$

$C_2^4$  — G1

$$G7 = 29$$

29 G8

G9 = CH<sub>2</sub>CH<sub>2</sub>  
Patent location:

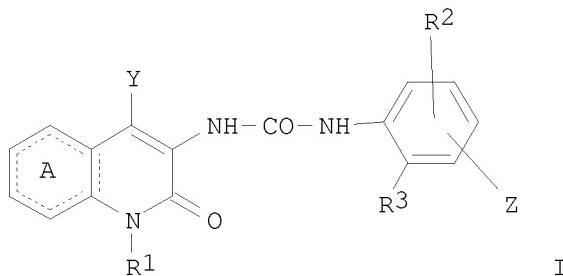
claim 1

Note: or pharmaceutically acceptable salts  
 Note: substitution is restricted

L5 ANSWER 6 OF 11 MARPAT COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 132:180562 MARPAT  
 TITLE: Preparation of naphthyridine derivatives as acyl-CoA:cholesterol acyltransferase (ACAT) inhibitors  
 INVENTOR(S): Muraoka, Masami; Ban, Hitoshi; Ohashi, Naohito  
 PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 95 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000009505	A1	20000224	WO 1999-JP4257	19990805
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2339962	A1	20000224	CA 1999-2339962	19990805
AU 9950659	A1	20000306	AU 1999-50659	19990805
EP 1104763	A1	20010606	EP 1999-935084	19990805
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 3594317	B2	20041124	JP 1999-557820	19990805
US 6420381	B1	20020716	US 2001-762599	20010209
PRIORITY APPLN. INFO.:			JP 1998-226685	19980811
			WO 1999-JP4257	19990805

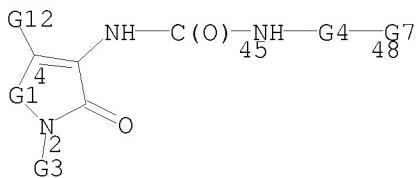
GI



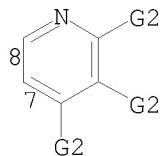
AB Title compds. I [ring A represents an optionally substituted pyridine ring; Y represents optionally substituted alkyl, etc.; R1 represents hydrogen, optionally substituted alkyl, etc.; R2 represents hydrogen or

lower alkyl; R3 represents lower alkyl; and Z represents: (1) D1Q (wherein D1 represents a bond, divalent C1-8 hydrocarbyl, etc.; and Q represents hydroxy, carboxy, etc.); or (2) D2MEW (wherein D2 represents a bond, a divalent C1-8 hydrocarbyl, etc.; M represents oxygen, sulfur, etc.; E represents a bond, divalent C1-8 hydrocarbyl, etc.; and W represents hydroxy, carboxy, etc.)] are prepared and as remedies for hyperlipemia and arteriosclerosis. The title compound N-[1-butyl-4-(3-methoxyphenyl)-1,2-dihydro-2-oxo-1,8-naphthyridin-3-yl]-N'-(2-tert-butyl-5-(morpholinomethyl)phenyl)urea hydrochloride in vitro at 10<sup>-6</sup> M gave 98% inhibition of ACAT.

MSTR 1



G1 = 8-4 7-2



G12 = 148

G27-G22-G24-G25  
148

G22 = bond  
 G24 = carbon chain <containing 1-8 C>  
 G25 = NHCHO  
 G27 = phenylene

Derivative: or prodrugs or pharmacologically acceptable salts  
 Patent location: claim 1  
 Note: substitution is restricted

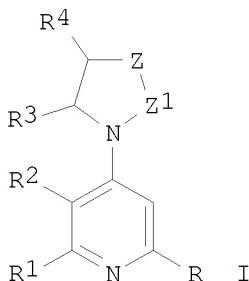
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 11 MARPAT COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 131:184941 MARPAT  
 TITLE: Preparation of 1-(5-arylthieno[3,2-b]pyridin-7-yl)piperidine-4-carboxamides and analogs as GABA<sub>A</sub> receptor ligands  
 INVENTOR(S): Cai, Guolin; Liu, Gang; Chen, Guoqing; Albaugh, Pamela  
 PATENT ASSIGNEE(S): Neurogen Corporation, USA

SOURCE: PCT Int. Appl., 76 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

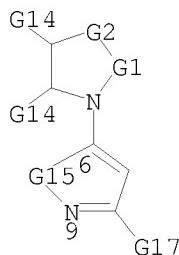
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9943682	A1	19990902	WO 1999-US4223	19990226
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9927931	A	19990915	AU 1999-27931	19990226
US 6166203	A	20001226	US 1999-259146	19990226
US 20020077474	A1	20020620	US 2000-736497	20001213
US 6423711	B2	20020723		
PRIORITY APPLN. INFO.:			US 1998-76099P	19980226
			US 1999-259146	19990226
			WO 1999-US4223	19990226

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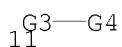


AB Title compds. [I; R = (un)substituted (hetero)aryl; R<sub>1</sub>R<sub>2</sub> = atoms to complete a thiophene, pyridine, or pyrimidine ring; R<sub>3</sub>, R<sub>4</sub> = H or alkyl; Z = O, CHR<sub>5</sub>, NR<sub>5</sub>; R<sub>5</sub> = H, aryl, CO<sub>2</sub>H, CONH<sub>2</sub>, alkoxy carbonyl, etc.; Z<sub>1</sub> = bond or (CH<sub>2</sub>)<sub>1-3</sub>] were prepared. Thus, 3-amino-2-thiophenecarboxylic acid was cyclocondensed with 4-FC<sub>6</sub>H<sub>4</sub>COCH<sub>2</sub>CO<sub>2</sub>Et and the chlorinated product aminated by isonipeptamide to give I (R = C<sub>6</sub>H<sub>4</sub>F-4, R<sub>1</sub>R<sub>2</sub> = CH:CH<sub>2</sub>, R<sub>3</sub> = R<sub>4</sub> = H, Z = CHCONH<sub>2</sub>, Z<sub>1</sub> = CH<sub>2</sub>CH<sub>2</sub>). Data for biol. activity of I were given.

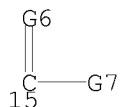
MSTR 1



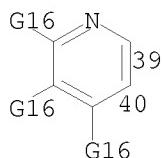
G1 = (0-3) CH<sub>2</sub>  
G2 = 11



G3 = CH  
G4 = 15



G7 = alkyl <containing 1-6 C> (substd. by NH<sub>2</sub>)  
G15 = 39-6 40-9



Derivative: or pharmaceutically acceptable non-toxic salts  
Patent location: claim 1

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

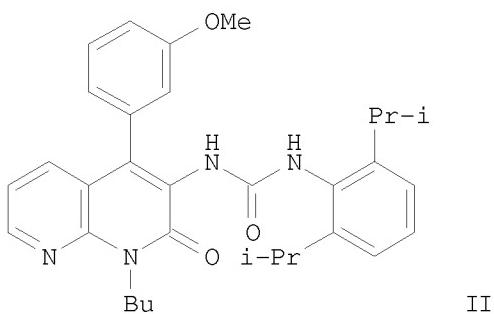
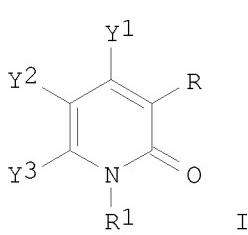
L5 ANSWER 8 OF 11 MARPAT COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 131:170353 MARPAT  
TITLE: Method for preparation of pyridone urea derivatives from amino or carbamoylpyridone derivatives  
INVENTOR(S): Muraoka, Masami; Morishita, Koji; Aida, Nagisa; Tanaka, Masashi; Yuri, Masatoshi; Ohashi, Naohito  
PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Co., Ltd., Japan  
SOURCE: PCT Int. Appl., 151 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9943659	A1	19990902	WO 1999-JP718	19990217
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2321237	A1	19990902	CA 1999-2321237	19990217
AU 9925473	A	19990915	AU 1999-25473	19990217
EP 1086948	A1	20010328	EP 1999-905228	19990217
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
US 6300500	B1	20011009	US 2000-623030	20000825
US 20010051732	A1	20011213	US 2001-853953	20010514
US 6452008	B2	20020917		
PRIORITY APPLN. INFO.:			JP 1998-62346	19980225
			JP 1998-92567	19980319
			WO 1999-JP718	19990217
			US 2000-623030	20000825

OTHER SOURCE(S): CASREACT 131:170353

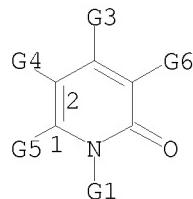
GI



AB A process for producing a pyridone derivative represented by general formula [I; R = NHCONH-L; R1 = H, (un)substituted alkyl, alkenyl, alkynyl, or cycloalkyl; Y1 = H, (un)substituted alkyl, cycloalkyl, or aromatic group; Y2, Y3 = H, halo, OH, cyano, CF3, NO2, NH2 mono- or dialkylamino, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, (un)substituted alkyl, cycloalkyl, or aromatic group; or Y2 and Y3 are linked together to form an (un)substituted pyridine] is characterized by reacting (oxidizing) a carbamoylpyridone represented by general formula I (R = CONH2) with a hypochlorite or hypobromite or with lead tetraacetate to give isocyanatopyridone represented by general formula I(R = isocyanato) and reacting this compound with an amine represented by general formula L-NH2. The process is preferable, especially from the standpoint of safety. The N-(2-oxo-1,2-dihydropyridyl)urea derivs. possess acyl-CoA:cholesterol

acyltransferase (ACAT) inhibitory-activity and are useful for the treatment of hyperlipidemia and arteriosclerosis (no data). Thus, 14.5 g lead tetraacetate was added to a suspension of 10.0 g 1-butyl-3-carbamoyl-4-(3-methoxyphenyl)-1,2-dihydro-2-oxo-1,8-naphthyridine in 100 mL DMF and stirred at room temperature for 0.5 h, followed by adding 5.3 g 2,6-diisopropylaniline at room temperature, and the resulting mixture was stirred at 40-50° for 1.5 h to give 68% N-(1,2-dihydro-2-oxo-1,8-naphthyridin-3-yl)-N'-phenylurea (II).

MSTR 1



G3 = 70

 $G_{10}-G_{11}-G_{12}-G_{13}$   
 $_{70}^{G_{10}}-_{71}^{G_{11}}-_{72}^{G_{12}}-_{73}^{G_{13}}$ 

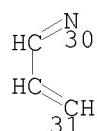
G4 = 87

 $G_{19}-G_{21}-G_{21}-G_{13}$   
 $_{87}^{G_{19}}-_{88}^{G_{21}}-_{90}^{G_{21}}-_{90}^{G_{13}}$ 

G5 = 91

 $G_{20}-G_{11}-G_{22}-G_{13}$   
 $_{91}^{G_{20}}-_{92}^{G_{11}}-_{94}^{G_{22}}-_{94}^{G_{13}}$ 

G10 = phenylene (opt. substd.)  
 G11 = bond  
 G12 = carbon chain <containing 1-15 C>  
 G13 = NHCHO  
 G4 + G5 = 30-2 31-1



Derivative: and protected derivatives  
 Patent location: claim 1  
 Note: also incorporates claims 8 and 18

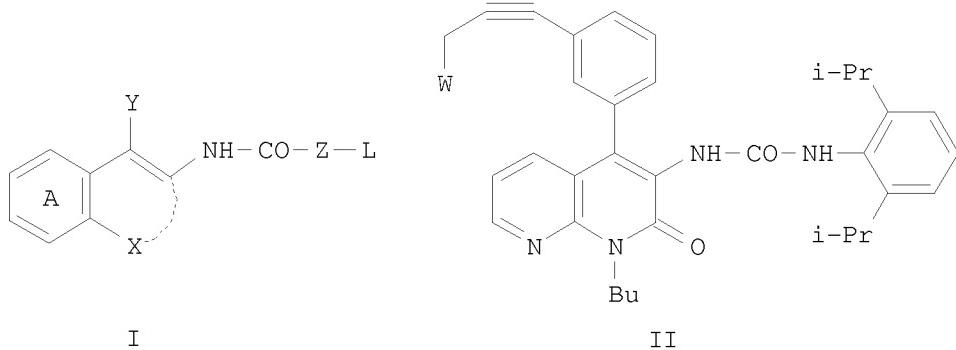
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT.

L5 ANSWER 9 OF 11 MARPAT COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 129:41083 MARPAT  
TITLE: Preparation of naphthyridine derivatives as  
cholesterol acyltransferase inhibitors  
INVENTOR(S): Muraoka, Masami; Ioriya, Katsuhisa; Ohashi, Naohito;  
Yagi, Hideki  
PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Company, Limited, Japan  
SOURCE: PCT Int. Appl., 160 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9823615	A1	19980604	WO 1997-JP4276	19971125
W: AU, CA, CN, KR, NZ				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2272068	A1	19980604	CA 1997-2272068	19971125
AU 9749688	A	19980622	AU 1997-49688	19971125
AU 725276	B2	20001012		
JP 10212288	A	19980811	JP 1997-340571	19971125
US 5843957	A	19981201	US 1997-978146	19971125
EP 947515	A1	19991006	EP 1997-912545	19971125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
CN 1245500	A	20000223	CN 1997-181539	19971125
NZ 335766	A	20001124	NZ 1997-335766	19971125
KR 2000057268	A	20000915	KR 1999-704661	19990526
PRIORITY APPLN. INFO.:			JP 1996-331523	19961126
			JP 1995-158475	19950531
			WO 1997-JP4276	19971125

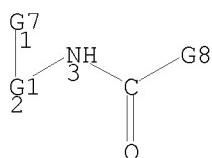
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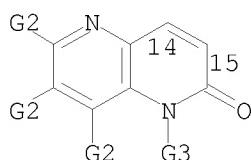
AB The title compds. [I; A is an optionally substituted pyridine ring; X is

N(R<sub>2</sub>)CO; R<sub>2</sub> is H, (un)substituted alkyl or alkenyl, etc.; Z is a free bond, NH, C<sub>1-2</sub> alkylene or CH:CH; Y is (un)substituted aryl; L is (un)substituted alkyl or aryl, etc.] are prepared I exhibit an inhibitory activity against acyl-CoA cholesterol acyltransferase (ACAT) and therefor are useful as preventive and therapeutic agents for hyperlipemia, arteriosclerosis and related diseases. Thus, compound (II; W = Br) (preparation given) was reacted with pyrrolidine to give the title compound II (W = 1-pyrrolidyl), which showed IC<sub>50</sub> of 10<sup>-7</sup> M against ACAT when tested with rat.

MSTR 1



G1 = 14-1 15-3



G7 = 127

G9—G12—G13  
127 128 129

G9 = phenylene  
 G12 = carbon chain <containing 1-15 C,  
       0 or more double bonds, 0 or more triple bonds>  
 G13 = loweralkylcarbonylamino  
 Patent location: claim 1

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

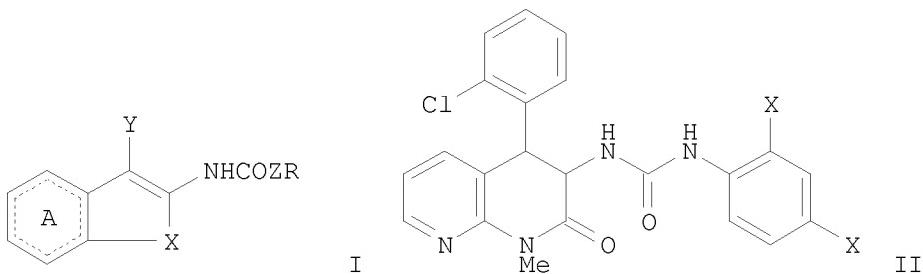
L5 ANSWER 10 OF 11 MARPAT COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 126:89279 MARPAT  
 TITLE: Preparation of novel naphthyridine derivatives as cholesterol acyltransferase inhibitors  
 INVENTOR(S): Muraoka, Masami; Ioriya, Katsuhisa; Ohashi, Naohito  
 PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Company, Limited, Japan  
 SOURCE: PCT Int. Appl., 109 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9638445	A1	19961205	WO 1996-JP1429	19960528
W:	AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, KE, KG, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ			
RW:	KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR			
JP 09048780	A	19970218	JP 1996-156069	19960527
JP 3996657	B2	20071024		
CA 2222687	A1	19961205	CA 1996-2222687	19960528
AU 9657808	A	19961218	AU 1996-57808	19960528
AU 699091	B2	19981119		
EP 842933	A1	19980520	EP 1996-914458	19960528
EP 842933	B1	20040804		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI			
CN 1191536	A	19980826	CN 1996-195773	19960528
CN 1065243	C	20010502		
AT 272635	T	20040815	AT 1996-914458	19960528
ES 2225884	T3	20050316	ES 1996-914458	19960528
US 5843957	A	19981201	US 1997-978146	19971125
PRIORITY APPLN. INFO.:			JP 1995-158475	19950531
			WO 1996-JP1429	19960528
			JP 1996-331523	19961126

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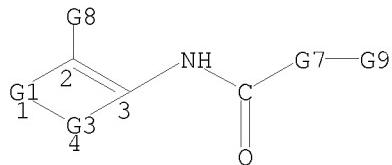


AB The title compds. [I; ring A = an optionally substituted pyridine ring; X = NR<sub>2</sub>CO; R<sub>2</sub> = H, (un)substituted (cyclo)alkyl, alkenyl, alkynyl, etc.; Z = a bond, NH, C1-2 alkylene, CH:CH; Y = (un)substituted alkyl, (un)substituted aryl, etc.; R = (un)substituted (cyclo)alkyl, alkenyl, alkynyl, aryl, etc.] and salts thereof are prepared I, having the activity of inhibiting acyl CoA: cholesterol acyltransferases (ACAT), are useful for preventing and treating hyperlipemia, arteriosclerosis and related diseases. Thus, 1-methyl-4-(2-chlorophenyl)-1,2-dihydro-2-oxo-1,8-naphthyridine-3-carboxylic acid (preparation given) was treated with diphenylphosphoryl azide and Et<sub>3</sub>N, and then reacted with 2,4-difluoroaniline to give the title compound II (X = F). II (X = i-Pr) at

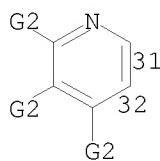
10/550,676

10-6 M showed 87% ACAT inhibitory when tested on rabbits in vitro.

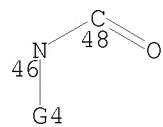
MSTR 1



G1 = 31-2 32-4



G3 = 46-1 48-3



G7 = bond  
G8 = 134

$\frac{G_{23}-G_{24}}{134}$

G17 = carbon chain <containing 1-6 C,  
0 or more double bonds, 0 or more triple bonds>  
G23 = phenylene  
G24 = 136 / 139

$\frac{G_{11}-G_{25}-G_{26}}{136}$        $\frac{G_{17}-G_{26}}{139}$

G26 = alkylcarbonylamino <containing 1-5 C>  
Patent location: claim 1

L5 ANSWER 11 OF 11 MARPAT COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 116:255633 MARPAT  
TITLE: Preparation of 4-aryl-1-[(phenylcarbamoyloxy)propyl]pi  
perazines and related compounds as central nervous  
system (CNS) receptor ligands  
INVENTOR(S): Jeppeesen, Lone; Kristiansen, Marit; Hansen, John Bondo

PATENT ASSIGNEE(S): Novo-Nordisk A/S, Den.  
 SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

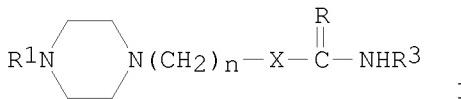
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9203426	A1	19920305	WO 1991-DK244	19910823
W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, PL, RO, SD, SE, SU				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, ML, MR, NL, SE, SN, TD, TG				
US 5246935	A	19930921	US 1991-744556	19910813
IL 99211	A	19960131	IL 1991-99211	19910816
ZA 9106652	A	19920527	ZA 1991-6652	19910822
CA 2089768	A1	19920225	CA 1991-2089768	19910823
AU 9184413	A	19920317	AU 1991-84413	19910823
AU 653956	B2	19941020		
EP 544765	A1	19930609	EP 1991-915381	19910823
EP 544765	B1	19950802		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 06500546	T	19940120	JP 1991-514325	19910823
NO 9300631	A	19930423	NO 1993-631	19930223
PRIORITY APPLN. INFO.:			DK 1990-2039	19900824
			WO 1991-DK244	19910823

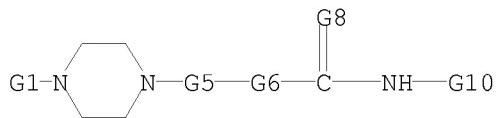
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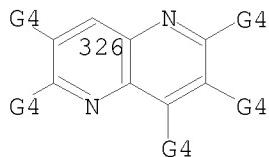
AB The title compds. [I; R = O, S, NZ; Z = H, C1-6 alkyl, cyano; R1 = (un)substituted Ph, (un)substituted (aza)naphthyl, -diazanaphthyl; X = O, NR2; R2 = H, C1-6 alkyl, C3-8 cycloalkyl; R3 = bezothiazolyl, (un)substituted Ph; n = 1-4], their physiol. acceptable salts and optical isomers, useful for treating CNS, cardiovascular, and gastrointestinal disorders, were prepared, e.g., by addition reaction of (arylpiperazinyl)propanols with Ph isocyanates. I have strong affinity to various CNS receptor subtypes. Thus, a mixture of 330 mg 3,4-methylenedioxypyphenyl isocyanate (preparation from 3,4-methylenedioxylaniline and COCl2 given) and 0.6 g 3-[4-(7-methoxy-1-naphthyl)piperazin-1-yl]propanol in 60 mL MePh was refluxed for 1 h to give the crude title product (II) which was chromatographed and converted into II.HCl. The latter had IC50 for binding to receptors 1.6 (5HT1A), 13 (5HT2), 4.3 (D2), and 144 nM ( $\alpha$ 1 receptor).

MSTR 1D

10/550,676



G1 = 326



G5 = (1-4) CH<sub>2</sub>

G6 = NH

Derivative: and physiologically acceptable salts

Patent location: claim 1

Stereochemistry: and optical isomers including racemic mixtures

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FILE 'REGISTRY' ENTERED AT 11:35:52 ON 31 JUL 2008

L1 STRUCTURE uploaded

L2 6 S L1 SAM

L3 82 S L1 FULL

FILE 'CA' ENTERED AT 11:36:27 ON 31 JUL 2008

L4 3 S L3

FILE 'MARPAT' ENTERED AT 11:36:43 ON 31 JUL 2008

L5 11 S L1 FULL

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